

WHAT IS CLAIMED IS:

1. A vend mechanism for transferring articles to a receiving area of a vending machine, comprising:

at least one conveyor for transferring the articles to the receiving area; and

a conveyor moving arrangement, the conveyor moving arrangement moving the conveyor to a transferring orientation in which operation of the conveyor transfers one of the articles to the receiving area.

2. The vend mechanism of claim 1, wherein the conveyor has a longitudinal axis having an angular orientation, and, in moving the conveyor to the transferring orientation, the conveyor moving arrangement changes the angular orientation of the longitudinal axis.

3. The vend mechanism of claim 2, wherein the conveyor moving arrangement moves the conveyor such that the longitudinal axis of the conveyor moves through an angle about an axis.

4. The vend mechanism of claim 2, wherein the conveyor comprises a helical element rotatable about a rotational axis parallel to the longitudinal axis of the conveyor, the vend mechanism further comprising a conveyor operator rotating the helical element about the rotational axis.

5. The vend mechanism of claim 4, wherein a plurality of articles are positioned on the conveyor, and the conveyor operator comprises an arrangement for rotating the helical element through an angle at which only one of the articles is transferred to the receiving area.

6. The vend mechanism of claim 1, wherein the at least one conveyor comprises a plurality of conveyors, and the conveyor moving arrangement comprises an arrangement moving any selected one of the conveyors to a transferring orientation in which operation of the selected conveyor transfers one of the articles to a receiving area.

7. The vend mechanism of claim 6,

wherein each of the conveyors has a longitudinal axis, the longitudinal axes all lying in a conveyor plane, and

the conveyor moving arrangement moves the conveyors such that the longitudinal axes of the conveyors move about an axis perpendicular to the conveyor plane.

8. The vend mechanism of claim 1, further comprising a plurality of conveyor planes, wherein the at least one conveyor comprises a plurality of conveyors each having a longitudinal axis, each conveyor plane containing the longitudinal axes of a plurality of the conveyors, and

the conveyor moving arrangement moves the conveyors such that the longitudinal axes of the conveyors move about an axis perpendicular to the conveyor planes.

9. The vend mechanism of claim 8, wherein the conveyor planes are arranged one above another, and the conveyors each have a length, the length of the conveyor of one conveyor

plane being greater than the length of the conveyors of a conveyor plane below said one conveyor plane.

10. The vend mechanism of claim 7, wherein the conveyors are mounted on a conveyor support plate, and the conveyor moving arrangement comprises a structure supporting the conveyor support plate above a fixed surface.

11. The vend mechanism of claim 10, wherein the conveyor moving arrangement comprises a bearing structure guiding the conveyor support plate for movement about said axis perpendicular to the conveyor plane.

12. The vend mechanism of claim 7, wherein the conveyor moving arrangement comprises a drive arrangement rotating the conveyor support plate through a selected angle about said axis perpendicular to the conveyor plane.

13. The vend mechanism of claim 8, wherein the conveyors are mounted on a plurality of conveyor support plates, the support plates being fixed at a distance from one another, and

the conveyor moving arrangement comprises a structure supporting the conveyor support plates above a fixed surface.

14. The vend mechanism of claim 13, wherein the conveyor moving arrangement comprises a bearing structure guiding the conveyor support plates for movement about said axis perpendicular to the conveyor plane.

15. The vend mechanism of claim 8, wherein the conveyor moving arrangement comprises a drive arrangement rotating the conveyor support plates through a selected angle about said axis perpendicular to the conveyor plane.

16. The vend mechanism of claim 4, wherein the conveyor operator comprises a drive arrangement having a drive element movable between a retracted position, in which the drive element is out of engagement from the conveyor, and an extended position, in which the drive element is in driving engagement with the conveyor.

17. The vend mechanism of claim 16, wherein the drive arrangement also has a rotating shaft fixed to the drive element, the rotating shaft bearing a helical structure, and a fixed member engaging the helical structure whereby the rotating shaft moves parallel to its axis in response to rotation about its axis.

18. The vend mechanism of claim 7, wherein the conveyor operator comprises a drive arrangement having a drive element, wherein the conveyor moving arrangement moves one of the conveyors into juxtaposition with the drive element, and the drive element is movable between a retracted position, in which the drive element is out of engagement from the conveyors, and an extended position in which the drive element is in engagement with said one conveyor.